

Remarks

This is responsive to the Office Action mailed November 30, 2009. The amendments and accompanying remarks herein are proper and do not introduce new matter.

Support for new claim 26 is found at least in the depiction of arrow 520 in FIG. 5 and the descriptions thereof. Support for new claim 27 is found at least in the specification at (page 9) para. [0036] lines 14-16.

Section 112 Rejection

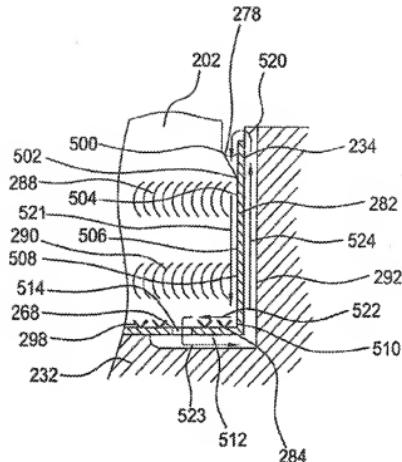
Claims 6-8 stand rejected as allegedly failing to recite antecedent basis for “the wall.” Explicit antecedent basis is not required; the issue is whether the skilled artisan would reasonably ascertain the scope of the claim by connecting the recited “a longitudinal wall” as being the antecedent basis for the subsequently recited “the wall.”¹ Applicant believes it is reasonable to believe that the skilled artisan readily understands that connection, in part because there is no other reasonable antecedent reference for “the wall.” Nonetheless, Applicant has amended these claims without prejudice and entirely for clarity sake to remove the issue by explicitly introducing and subsequently reciting “longitudinal wall.”

Section 102 Rejection

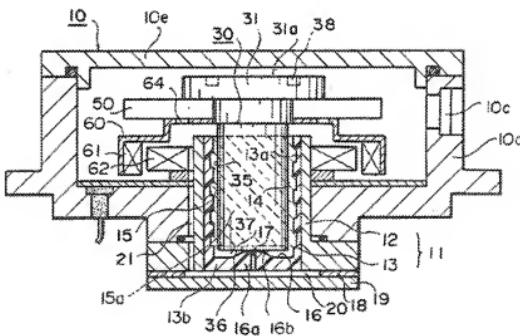
Claims 1, 23-25, 3, 6, 9-14, and 21 stand rejected as allegedly being anticipated by Tanaka (US 4,934,836).

Independent claim 1 is amended without prejudice for clarity sake to more particularly feature the channel operably communicating fluid from the fluid dynamic bearing via the passage in the bottom to the inlet reservoir of the capillary seal. FIG. 5 depicts arrows tracing the fluid recirculation path, with arrow 520 showing the fluid passing over the top of the longitudinal wall and into the inlet reservoir of the capillary seal.

¹ *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992) (“controlled stream of fluid” provided reasonable antecedent basis for “the controlled fluid”); MPEP 2173.05(e).



The Office read the featured channel onto Tanaka's channels 20, 21:



However, the working fluid in Tanaka is a gas, not a liquid. As such, the channel 21 simply terminates inside the housing 10.² Tanaka neither discloses a capillary seal nor a

² Tanaka col. 8:10-16.

channel that recirculates fluid from the fluid dynamic bearing to the inlet reservoir of a capillary seal as featured by claim 1.

In other rejections the Office also read the featured channel on Chen's passageways 109, 111.

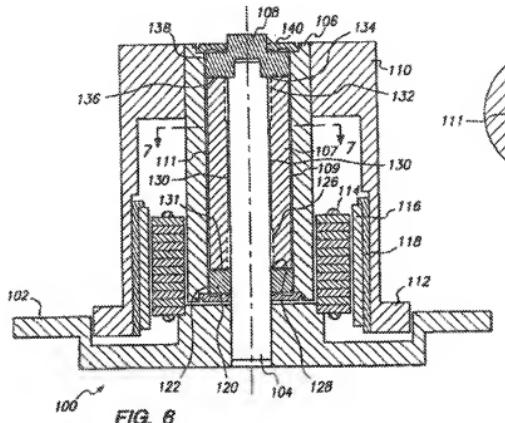


FIG. 6

Chen's capillary seals 122, 138 are formed by diverging wall inlet portions pointing downwardly (in seal 122) and upwardly (in seal 138). Chen discloses the passages 109, 111 recirculate fluid between the thrust bearings 131, 136:

The passageways 109 and 111 are e.g. arranged on opposite sides of the inner sleeve 107 and are sized no larger than to permit suitable recirculating flow of lubricant between thrust bearings 131 and 136 during operation of the bearing system....³

Chen's outwardly-directed inlet reservoirs of the capillary seals 122, 138 are longitudinally disposed beyond the thrust bearings 131, 136. As such, the skilled artisan readily recognizes that Chen's passageways 109, 111 do not communicate fluid to the inlet reservoir of the capillary seal as featured by claim 1. In fact, Chen teaches away from the claimed embodiments by not replenishing working fluid to the inlet reservoir of the

³ Chen col. 9:11-14 (emphasis added).

capillary seals. Also, the Office's rationale that it would be obvious to add the featured capillary seal to Tanaka is misplaced because the working fluid in Tanaka is gas, not liquid.

Neither Takajo nor Tanaka '869 disclose or suggest a channel operably recirculating the working fluid.

As such, none of the art of record discloses or suggests at least the *channel outside the liner, extending along the bottom and the longitudinal wall, that operably fluidly communicates recirculating fluid from the fluid dynamic bearing via the passage to the inlet reservoir* as featured by claim 1. Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 1 and the claims depending therefrom in view of the clarifying amendments.

Section 103 Rejection

Claims 7 and 8 stand rejected as allegedly unpatentable over Tanaka in view of Tanaka '869. However, as discussed above Tanaka '869 does not cure the deficiency of Tanaka in the rejection of the independent claim from which these claims depend. These claims are allowable at least because they depend from an allowable independent claim, for reasons above, and recite additional features. Applicant respectfully requests reconsideration and withdrawal of the rejection of these claims.

Conclusion

This is a complete response to the Office Action mailed November 30, 2009. Applicant respectfully requests passage of all claims to issuance.

Applicant has also submitted herewith a request for telephone interview before the Office enters the next action. The presently requested interview is necessary and appropriate in view of the protracted prosecution history to best facilitate progress on the merits and to resolve, if necessary, any issues remaining unresolved by this Response.

The Office is encouraged to contact the undersigned should any question arise concerning this response or anything else concerning this case.

Respectfully submitted,

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